OCCUPATIONAL SAFETY
AND HEALTH STANDARDS BOARD
2520 Venture Oaks, Suite 350
Sacramento, CA 95833
(916) 274-5721
FAX (916) 274-5743
www.dir.ca.gov/oshsb

FINAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 7, Group 2, Article 7, Section 3314
of the General Industry Safety Orders

The Control of Hazardous Energy

MODIFICATIONS RESULTING FROM THE 15-DAY NOTICES OF PROPOSED MODIFICATIONS AND THE 45-DAY PUBLIC COMMENT PERIOD

No further modifications to the information contained in the Initial Statement of Reasons are proposed as a result of the second 15-day Notice of Proposed Modifications mailed on September 17, 2004, and Board staff evaluation.

However, as a result of public comments received during the 45-Day Public Comment period and the First 15-Day Notice of Proposed Modifications, mailed on August 23, 2004, as well as Board staff consideration, the following substantive, non-substantive and sufficiently related modifications have been made:

Section 3314(a), Application:
The note originally located below subsection (a)(2) has been relocated to new subsection (a)(3). A comment received during the public comment period indicated that, by virtue of its location, the note might be misconstrued to apply only to subsection (a)(2). Therefore, it is proposed to identify the note as subsection (a)(3) for clarity. The purpose and necessity for this modification is to clarify that lockout/tagout requirements for working on energized electrical systems are prescribed in Sections 2320.1 through 2320.9, and 2940 through 2945 of the Electrical Safety Orders.

Section 3314(b), Definitions:
Definitions for "Affected employee" and "Authorized employee or person" have been added. These definitions are based on and are substantially identical to the federal definitions; however, the scope of their application is limited, by definition, to Section 3314 since they are defined strictly for lockout/tagout applications. The purpose and necessity for these new definitions is to clarify modifications made to subsections (h), Periodic inspection, and (j), Training. Subsections (h) and (j) were modified in response to comments received during the public comment period.

Section 3314(c), Cleaning, Servicing and Adjusting Operations:
It is proposed to modify the first sentence of subsection (1) by deleting the phrase "including but not limited to interlocks." The deletion is in response to a number of public comments objecting to the inclusion of a reference to interlocks in the proposed standard. Public comments indicated that interlocks are generally not considered to be suitable for use as energy isolating devices. Furthermore, there are a number of control devices and systems considered to be within the broad category of "interlocks." Comments were received which indicated that interlocks are prone to hardware and software failures, they can be defeated, reliability varies greatly, and their use can create a false sense of security. Finally, there was no consensus among advisory committee members for the inclusion of interlocks in the proposed standard. The purpose and necessity for this modification is to remove language that would specifically permit the use of interlocks to protect employees during cleaning, servicing and adjusting operations.

Exception to Subsections 3314(c) and (d):
A third exception to subsections (c) and (d) is proposed which permits the use of a uniform system with unique, personally identifiable locks that are designed for lockout and that are placed on the energy source in lieu of accident prevention signs or tags. This exception permits, but does not mandate, the use of a lockout system compliant with federal standards [1910.147(b)(5)] in lieu of accident prevention signs or tags where prescribed by subsections 3314(c) and (d). The purpose and necessity for this change is to permit the use of a commonly available, compliant, lockout system that is used by a number of California employers, without placing an additional and unnecessary burden on them to provide accident prevention signs and/or tags as well.

Section 3314(e), Materials and Hardware:
This section, as originally proposed, would have required the employer to provide accident prevention signs, tags, padlocks, seals or other similarly effective means, which may be required by any repair. Due to public comments and suggestions, it is proposed to modify the subsection to read: "The employer shall provide accident prevention signs, tags, padlocks, seals or other similarly effective means which may be required ~~by any~~ for cleaning, servicing, adjusting, repair work or setting-up operations." The phrase "by any…" is proposed for deletion since it lacks clarity and can be considered to be unreasonable. The terms "cleaning, servicing, adjusting, repair work or setting-up operations" have been added for consistency with other parts of the standard. The purpose and necessity for these modifications is to assure that the proposal is clear and consistent.

Section 3314 (g), Hazardous Energy Control Procedures:
The exception to subsection (g)(2), which was based on an 8-part Federal exception to 29 CFR 1910.147(c)(4)(i), and which specified the conditions by which an employer need not document the required procedures for a particular machine or equipment, is proposed for deletion due to a number of public comments indicating that it was confusing, and overlapped and conflicted with subsection (g)(2)(A). Comments indicated that rather than clarifying the requirements, it further confused a highly complicated area in the federal standard. The proposed modifications will substantially conform both subsections (g)(2) and (g)(2)(A) with the advisory committee consensus which many commenters felt would simplify hazardous energy control procedure

documentation requirements. The purpose and necessity for the modification is to simplify and clarify documentation requirements for hazardous energy control procedures.

Section 3314(g)(2)(A), as originally proposed, would have required the employer's hazardous energy control procedure to include separate instructions for the safe lockout/tagout of each machine or piece of equipment. A modification is proposed to change "instructions" to "procedural steps" to address a concern expressed about the distinction between procedures and instructions. The purpose and necessity for the modification is to clarify hazardous energy control procedure composition and documentation requirements.

In addition, it is proposed to modify the exception to subsection (g)(2)(A), which permitted the instructions for the safe lockout/tagout of prime movers, machinery or equipment to be used for a group or type of machinery or equipment provided: 1) the operational controls named in the instructions are configured similarly, 2) the locations of disconnect points (energy isolating devices) are identified, and 3) the lockout/tagout sequence steps are similar. As noted in the exception to Section 3314(g)(2) above, portions of these two exceptions overlapped and conflicted, creating confusion. Consequently, the modifications proposed for Section 3314(g)(2) would consolidate and simplify the conditions under which hazardous energy control procedures may apply to more than one machine or piece of equipment. These conditions, which are substantially the advisory committee consensus, would be categorized as Conditions 1 and 2 under the modified exception for subsection (g)(2)(A). Either one of the conditions must exist in order to qualify for the exception. Condition 1 is essentially verbatim of the three elements originally proposed. The term "instructions," however, has also been changed to "procedural steps" for consistency with subsection (g)(2)(A) for the reasons stated above. Moreover, the elements have been relettered as (A) through (C). The second condition reads, "The machinery or equipment has a single energy supply that is readily identified and isolated and has no stored or residual hazardous energy." The purpose and necessity for these modifications is to clarify requirements, and eliminate overlap and conflict that would have created confusion for the regulated public.

A modification is proposed to delete subsection (2)(B) under Section 3314(g), which required that the instructions for the safe lockout/tagout of each machine, or piece of equipment be readily available and understandable to all affected employees, since it duplicates provisions already contained in the Injury and Illness Prevention Program contained in Section 3203(a)(3). The purpose and necessity for this modification is to eliminate duplication.

Section 3314(h), Periodic Inspection:
Public comments indicated there was widespread confusion about the scope of the periodic inspection, including whether it was intended to be a "hands-on" review of employees applying lockout/tagout to each machine. If it was intended to be a "hands-on" inspection, there was concern that this would be unnecessarily burdensome for employers, given the number of employees and machines that could potentially be affected. Consequently, modifications are proposed to clarify that the purpose of the periodic inspection is to evaluate the continued effectiveness or necessity for updating written hazardous energy control procedures, and not to evaluate employee knowledge and proficiency in applying those procedures. Board notes that

employee training issues are already covered in Section 3203, the Injury and Illness Prevention Program.

In subsection (h)(2), a modification is proposed to revert to the prior term "authorized employee," replacing the originally proposed provision for the review to be performed by a "qualified person." As noted previously, the term "authorized employee" has now been defined in subsection (b) for clarification purposes.

Subsection (h)(2) has also been modified, consistent with other modifications to this section, so that the review need only include a review between the inspector and authorized employees to the extent of validating the effectiveness of the written procedures. The purpose and necessity for these modifications is to clarify the purpose and scope of the periodic inspection.

Section 3314(j), Training:
As originally proposed, subsection (j)(1) required that "affected employees" be trained on hazardous energy control procedures and on the hazards related to performing any activity required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment; however, "affected employee" was not defined. Some commenters expressed concern that the proposal lacked clarity in the number of employees affected and in the type of training required. The federal counterpart standard, 29 CFR 1910.147(c)(7)(i), requires the employer to provide training to ensure that the purpose and function of the energy control program are understood by employees, and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees based on three different levels of employee duties and exposure. These three levels are: (1) authorized employees, (2) affected employees, and (3) all other employees.

In response to these comments, it is proposed to modify subsection (j) to be consistent with the federal counterpart standard. The term "affected employee" has been replaced with "authorized employee" in subsection (1). New subsection (2) is proposed which requires each affected employee to be instructed in the purpose and use of the energy control procedure. And, new subsection (3) is proposed that requires all other employees whose work operations may be in an area where energy control procedures may be utilized, to be instructed about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out. The purpose and necessity for these modifications is to clarify training requirements based on duties and hazards consistent with federal counterpart standards.

Existing subsection (j)(2), which requires that the training be documented and kept in the employee's training records as required by Section 3203, is proposed for renumbering as subsection (4), and modified to delete the phrase, "and kept in the employee's training records" as being duplicative with requirements already prescribed by Section 3203.

SUMMARY AND RESPONSE TO COMMENTS RESULTING FROM
THE 15-DAY NOTICES OF PROPOSED MODIFICATIONS
AND THE 45-DAY PUBLIC COMMENT PERIOD

Second 15-Day Notice Summary and Response to Written Comments:

There were no written comments received during the second 15-Day Notice of Proposed Modifications ending October 4, 2004.

First 15-Day Notice Summary and Response to Written Comments:

Ms. Judith S. Freyman, Director, Western Occupational Safety and Health Operations, ORC Worldwide, by letter dated September 8, 2004.

Comment:
Ms. Freyman suggested that the use of personally identifiable locks instead of tags on a power source should be reconsidered. The commenter stated that the use of locks in lieu of tags is not only a method of improving safety, it is also more reliable, since employees tend to default to the easiest practice over time, when under pressure or as training fades. The commenter opined that requiring tags, as proposed in subsection 3314(c), would provide no additional protection while adding an unnecessary burden for employers.

The commenter suggested adding the following note to subsection 3314(c): "Where an employer has a uniform system with unique, personally identifiable locks that are placed on the source of energy no accident prevention signs or tags are required."

Response:
The suggested wording offered by the commenter is substantially the same as proposed by Ms. Treanor's (Phylmar Regulatory Roundtable) written comment dated January 15, 2004. Subsequent to the Board's response to the 45-Day public comments, Board staff learned that the proposed lockout system is used by a number of California employers. Furthermore, the proposed exception would permit a system compliant with federal standards [1910.147(c)(5)]. Therefore, the Board has reconsidered, and proposes to add an exception for subsections 3314(c) and (d) to permit the use of a uniform and compliant lockout system in lieu of providing accident prevention signs or tags.

The Board thanks Ms. Freyman for her comments and participation in the Board's rulemaking process.

Mr. Robert Moats, Safety Professional, by e-mails dated September 8, 2004, and September 10, 2004.

A number of the comments offered were outside the scope of the 15-Day Notice; however, the Board responds to the following comments, which are within the scope of the proposed modifications.

Comment No. 1:
Mr. Moats commented that the "area" referenced in the definition of "affected employee" in Section 3314(b) is vague. He speculated that in a large manufacturing area, all employees could be considered to be affected employees, and suggested the definition be modified so that an employee becomes an affected employee if the person could be affected by the energy should it be released.

Response:
This definition is taken nearly verbatim from 29 CFR 1910.147(b) and Board staff is of the opinion the proposed definition is consistent, not only with the federal definition, but with a federal OSHA interpretation dated February 10, 2004[1]. Neighboring and nearby states, Arizona and Nevada, enforce the federal standard, and Oregon[2] and Washington[3] have adopted the federal definition for "affected employee" nearly verbatim. None of these definitions are more specific with regard to the extent of the area in question. The Board believes that a reasonable interpretation of the definition could not be construed to apply to employees who would not be affected by the hazardous energy procedures. In light of the consistency of the proposed definition with federal OSHA, as well as with standards in nearby states, the Board is of the opinion that further clarification is unnecessary, and therefore declines to modify the proposed definition.

Comment No. 2:
Mr. Moats opines that there is an apparent inconsistency in the use of the singular and plural form of the words "procedure" and "procedures" in subsection 3314(g) of the proposal. He recommended that the form be consistent throughout the standard.

Response:
Subsection 3314(g)(1) prescribes the content of the procedure; i.e., it shall outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance, etc. Subsection (g)(2) addresses documentation requirements, and prescribes where machine-specific procedures are required and where a single procedure may be used for a group or type of machinery or equipment.

The Board is of the opinion that Mr. Moats' proposed editorial modification could potentially re-introduce confusion regarding documentation requirements, that were addressed in the 45-Day Notice, and therefore declines to make the suggested modification.

The Board notes that Mr. Moats raised a number of issues that are outside the scope of the 15-Day Notice of Proposed Modifications, and that some were outside the scope of the original proposal as well. The Board notes that other comments offered by Mr. Moats may actually pertain in whole or in part to the Electrical Safety Orders. In all cases, Mr. Moats may petition

[1] U.S. DOL, OSHA Standard Interpretation of 29 CFR 1910.147(b) and 1910.147(c)(7), by letter dated February 10, 2004.
[2] OAR 1910.147(b)
[3] WAC 296-24-11003

the Board for a future rulemaking to address these issues under the provisions of Labor Code Section 142.2 if he so desires.

The Board thanks Mr. Moats for his comments and participation in the Board's rulemaking process.

Mr. Larry Tipton, Industrial Hygiene Manager, Southern California Edison, by fax dated September 10, 2004.

Comment No. 1:
Mr. Tipton asked how the "area," as used in the last part of the definition of "affected employee" in Section 3314(b), which reads, "or whose job requires the employee to work in an area in which such activities are being performed under lockout or tagout," is defined. Mr. Tipton opined that the term is ambiguous and confusing, and recommends that the definition be clarified by deleting this last part.

Response:
See the Board's response to Mr. Moats' Comment No. 1 above.

Comment No. 2:
Mr. Tipton commented that two of the three levels of training outlined in Section 3314(j) are redundant, and asked what the differences were between subsections (j)(2) and (j)(3). Mr. Tipton opined that "the training provided to an affected employee who may be in the work area where energy control procedures may be utilized should be the same." He suggested that subsections (j)(2) and (j)(3) be replaced with a single performance-oriented requirement reading: "Employees other than authorized employees will receive sufficient instruction or information regarding the employer's LOTO program that is appropriate for their exposure or work task."

Response:
The Board is of the opinion that combining these two subsections into one could potentially impose more (and unnecessary) training requirements on the employer. Subsection 3314(j)(2) prescribes training for the "affected employee" i.e., an employee whose job requires them to operate or use a machine or equipment on which cleaning, repairing, servicing, setting-up or adjusting operations are performed under lockout or tagout, or whose job requires the employee to work in an area in which such activities are being performed under lockout or tagout. Subsection 3314(j)(3), however, applies to all other employees who are not using or operating a machine or equipment undergoing work under lockout/tagout, but whose job may require them to work in an area where lockout/tagout is being performed. Subsection (j)(3) only requires general instruction to employees who may be in the area where lockout/tagout is utilized so that they are aware that those machines or equipment that are locked out or tagged out should not be restarted, and that the lockout/tagout devices on such machines or equipment should not be tampered with or defeated.

The Board notes that this language is nearly verbatim of 29 CFR 1910.147(b)(7)(i)(A) through (b)(7)(C), which is enforced in both Arizona and Nevada. Furthermore, these provisions are

nearly identical to those enforced in Oregon[4] and Washington[5]. In light of the consistency of the proposal with federal OSHA, as well as with nearby states, the Board is of the opinion that the suggested modifications are not warranted.

The Board notes that Mr. Tipton's comment regarding the degree of training prescribed in subsection 3314(c) is outside the scope of both the original proposal and the modified proposal. Mr. Tipton may petition the Board for a future rulemaking to address this issue under the provisions of Labor Code Section 142.2 should he so desire.

The Board thanks Mr. Tipton for his comments and participation in the Board's rulemaking process.

Summary and Response to Oral and Written Comments Received During the 45-Day Public Comment Period:

I. Written Comments

Mr. Len Welsh, Acting Chief, Division of Occupational Safety and Health, by letter dated December 29, 2003.

Comment:
Mr. Welsh stated that the use of "…including but not limited to interlocks..." in section 3314(c)(1) does not reflect the consensus proposal of the advisory committee and recommended that the reference to interlocks be removed. In support of their recommendation, the Division notes that a Federal OSHA Letter of Interpretation found interlocks as not generally being suitable for use as energy isolating devices required by 29 CFR 1910.147. The Division made reference to an OSHA Letter of Interpretation to Hardie Building Products, dated July 15, 2003, noting that circuits meeting certain reliability and failure protection standards may be relied on as alternative safeguards for minor tool changes, adjustments and servicing activities as permitted in the minor servicing exception to 1910.147(a)(2)(ii) only where justified on a case-by-case hazard analysis. The Division commented that there are many machine or process equipment control devices and systems considered to be within the broad category of "interlocks." However many of these are prone to various hardware and software failures. Furthermore, interlocks are often rendered ineffective at locations where workers must deal with frequent and repetitive tasks. Therefore, the Division recommended that the subject provision for interlocks be removed from the proposal.

Response:
Board staff agrees that the Federal OSHA Letter of Interpretation does not appear to support the inclusion of a specific reference to interlocks as a permissible method or means of protecting employees from injury when machinery or equipment must be capable of movement during cleaning, servicing, and adjusting activities. Furthermore, a review of the advisory committee minutes confirms that, although the use of interlocks was discussed, no apparent consensus was

[4] OAR 1910.149(b)(7)(i)(A) through (C).
[5] WAC 296-24-11005(7)(a)(i) through (iii).

reached. Therefore, the Board proposes to withdraw the reference to interlocks from Section 3314(c)(1).

Mr. David W. Smith, CSP, PE, Safety Engineer, Ensign Safety and Health Advisory, by letter dated January 2, 2004.

Comment No. 1:
Mr. Smith expressed support for the overall need to modify Section 3314 rather than attempt to adopt the federal standard, 29 CFR 1910.147. Mr. Smith stated that the federal standard has significant problems and is enforced according to several administrative procedures, which, in California, would be considered "underground regulations." Furthermore, Mr. Smith noted that Section 3314 has an extensive and important history of Decisions after Reconsideration (DARs) by the Appeals Board, and that the gist of significant DARs was incorporated into the advisory committee consensus draft proposal. He opined that it is important the Board retain the effect of this case law and clarify for the affected public that which is necessary.

Response:
The Board accepts Mr. Smith's comment. Modifications being made as a result of public comments will attempt to maintain the spirit, if not the letter, of the committee consensus.

Comment No. 2:
Mr. Smith comments that it is important to clarify that work on potentially energized electrical systems is covered in the Electrical Safety orders and that the note to proposed Section 3314(a)(2) is, in his opinion, necessary.

Response:
The Board agrees with Mr. Smith's comment; however, the note was not intended to apply only to subsection (a)(2), therefore, the Board proposes to retain and move and convert this note into a new subsection 3314(a)(3) for greater clarity.

Comment No. 3:
With regard to proposed subsection (d), Mr. Smith noted that he has found two types of equipment particularly challenging and sometimes impossible to design a locking means for; (1) hydraulically powered machines with many components driven by the same hydraulic pump, and (2) computer controlled machinery or systems. However, it is unclear to him whether the proposal will effectively allow for such challenges or whether permanent variances may be needed in some cases.

Response:
The Board acknowledges that it is difficult to develop a "one-size fits all" standard; however, the Board is of the opinion that the consensus performance-based approach will cover a wide variety of lockout situations in California and that it will be much more versatile than a prescriptive approach. The Board further notes that subsection (d) includes provision for unusual conditions:

> *"Machines, equipment, or prime movers not equipped with lockable controls or readily adaptable to lockable controls shall be considered in compliance with Section 3314 when positive means are taken, such as de-energizing or disconnecting the equipment from its source of power, or other action which will effectively prevent the equipment, prime mover or machine from inadvertent movement or release of stored energy."*

Finally, in those cases where the provisions of subsection (d) may be insufficient, the employer has the option to request a permanent variance in accordance with the provisions of Labor Code Section 143. Therefore, the Board does not believe any further modifications to subsection (d) are necessary or appropriate to address these concerns and declines to make further modifications to subsection (d).

Comment No. 4:
Mr. Smith recommended modifying subsection (e), Materials and Hardware, to include "cleaning, servicing, adjusting and set-up operations," consistent with language used throughout the section.

Response:
The Board accepts this comment and proposes to modify the applicable sentence of subsection (e) accordingly.

Comment No. 5:
Mr. Smith had a concern regarding subsection (g)(2)(A), which in his opinion contains a bifurcation of requirements for "procedures" and "instructions." He opined that these terms were essentially and practically the same and that the bifurcation creates duplicative and unclear regulations.

Response:
The Board accepts this comment and proposes to modify the proposed subsection (g)(2)(A) to change "instructions" to "procedural steps."

Comment No. 6:
Mr. Smith noted that subsection (g)(2) requires documenting the hazardous energy control "procedures" in writing with an exception for procedures for a particular machine or equipment when all of eight listed conditions are met. He also noted that the eight-part exception to (g)(2) appears to come from 29 CFR 1910.147(c)(4)(i). He commented that the advisory committee chose to disregard six parts of the eight-part federal exception due to difficulties Fed/OSHA has had with their application and since Fed/OSHA has already had an opportunity to review Section 3314 for equivalency without the 1910.147(c)(4)(i) provisions. Most problematic, according to Mr. Smith, is Condition #8, which would preclude employers with any history of an accident over an indefinite period of time from using this exception, regardless of the extent of injury from the lockout/tagout accident. Mr. Smith opines that most employers of any moderate size or production operation will be unable to utilize this exception, since Cal/OSHA has had greater experience proportionally with lockout/tagout than Fed/OSHA due to its reporting requirements

for serious accidents. Mr. Smith thus feels this condition places an unfair burden on California employers.

Response:
The Board accepts this comment and proposes to delete the federal 8-part exception and modify the proposal back to the advisory committee's consensus.

Comment No. 7:
Mr. Smith also noted that Condition #6 of the exception for (g)(2) requires that the lockout device be under the exclusive control of the authorized employee performing the cleaning, repairing, servicing, setting-up, and adjusting operations. Mr. Smith emphasized the need to promote that all exposed employees individually lockout using their own locks and not be dependent on the lockout device of another person.

Mr. Smith commented that lockout devices can include tagout and blockout according to the hazard and procedure. He gave an example of where an employer was cited by the Division for a violation of Section 3314 when a forklift that had been placed on stands for repairs fell on an employee. Mr. Smith, apparently referring to condition #6 of the proposed conditions for the exception to (g)(2), questioned whether a stand or block could be considered to be under the exclusive control of any one person. He therefore recommended that the advisory committee consensus draft proposal, subsection (g) be used for requirements pertaining to procedures and instructions. However, if it is deemed necessary to include procedures with documentation and instructions, he recommended deleting exceptions #3 through #8 of the exception to (g)(2).

Response:
The Board accepts this comment and proposes to delete the federal 8-part exception and modify the proposal back to the advisory committee's consensus.

Comment No. 8:
Mr. Smith stated that the Board needs to consider the extent and impact of proposed subsection (g)(2)(A), which would require separate detailed procedures/instructions for the safe lockout/tagout of each machine or piece of equipment. Mr. Smith stated that the Board has a duty to see the "big picture" of how this would affect many employers in the state, such as contractors. Mr. Smith used as an example a contractor repairing an HVAC unit for a new customer, noting that the contractor would have to write a specific lockout/tagout procedure for the specific HVAC unit before ever starting the work. He went on to say that he had represented clients who had been cited for a violation of Section 3314 where it was the first incidence of work for that contractor at that particular workplace. He stated that the term "boilerplate" has a bad connotation, but in this case it is not necessarily bad if the generalized procedures are well thought-out. He opined that employees should be taught the pertinent principles and then adjust to the needs of the occasion such as in the instances of outside service contractors or employed service mechanics in an operation with diverse locations and activities.

Response:
The issue of equipment-specific procedures was discussed at length by the advisory committee. The committee was of the opinion that consensus exceptions would address these concerns. The Board accepts this comment and has addressed this concern by modifying the proposal consistent with the advisory committee's consensus regarding hazardous energy control procedures.

Comment No. 9:
Mr. Smith stated that the requirement in subsection (i) whereby outside service personnel are to follow the on-site employer's lockout/tagout procedures is unrealistic and impractical, noting that there are many on-site employers who lack procedures or have defective procedures and that this has been the source of a great number of citations by the Division. He opined that the outside contractor should have acceptable procedures governing HVAC repair (for example) regardless of whether the building owner (maybe not even an employer) has written the procedure.

Response:
The Board notes that although this issue was within the scope of the advisory committee, it was not discussed. Therefore, the Board declines to modify the proposal without advisory committee input. However, Mr. Smith may petition the Board under the provisions of Labor Code Section 142.2 for a separate rulemaking to look into this issue.

Comment No. 10:
Mr. Smith stated that the substantial impact of detailed lockout/tagout procedures by named machine or equipment in proposed subsection (g)(2)(A) will not only be impractical or impossible for contractors, but also for many employers with diverse operations not normally associated with a fixed plant, for example, a farmer that has to repair or service an irrigation pump in the field. Mr. Smith opined that machinery or equipment away from the shop or normal center of operations would readily be overlooked or be considered too cumbersome to address.

Response:
The Board accepts this comment and believes that the proposed modifications, which will revert subsection (g)(2)(A), hazardous energy control procedures, back to the advisory committee's consensus will address this concern.

Comment No. 11:
Mr. Smith stated that there is no definition of "machine" or "equipment" which might specify whether the terms refer to fixed equipment in a permanent plant location, or apply to mobile equipment as well. Consequently, the necessity to establish written, detailed, machine-specific lockout/tagout procedures would apply to cotton pickers as well as other mobile harvesting equipment in the field. This mobile equipment may even be rented, placing an unreasonable, if not impossible, burden on the farmer. Furthermore, although the farmer may have many harvesters, there are often differences between them, such as brand, type, capacity, etc. This, too, makes the machine-specific requirement infeasible, and he questions whether the proposal meets the necessity standard of the Administrative Procedure Act (APA).

Response:
The Board notes that the proposal contains no expansion in scope beyond the currently applicable standard. Furthermore, this concern was not discussed at the advisory committee. The Board therefore declines to modify the scope to address this concern. Mr. Smith may, however, petition the Board to consider this issue separately at a future date.

Comment No. 12:
Mr. Smith stated that the requirement in subsection (g)(2)(B) for the procedure to be understandable to all affected employees would also impact the employer. This could require translating procedures into Spanish or another language that the employee understands. Disallowing "boilerplate" or standardized procedures will create a substantial burden on employers with hundreds or thousands of machines, and employers may chose to forego necessary and important translations. Furthermore, some machine-specific terms have no foreign translations. Mr. Smith noted that the current practice is to use an anglicized term, but that the term could be unacceptable for a written procedure. Even in English, workers have names for machines and equipment components that may be different from the part name shown on the manufacturer's parts list. Mr. Smith opined that this requirement will do little to promote safety, but will be an advantage for the Division to easily cite employers who do not have a specific written lockout procedure for every single machine or piece of equipment.

Response:
The Board accepts this comment. Since this concern is already addressed by General Industry Safety Orders, Section 3203(a)(3), the Board proposes to delete Section 3314(g)(2)(B).

Comment No. 13:
With regard to the training requirements in subsection (j), Mr. Smith noted that the federal standard also lacks clarity. He states that, in actual practice, the annual inspection of the procedures (required in subsection (h)) with the "authorized" employee is viewed as a training activity. If this is essentially true, he opined that there is a duplication of regulations. Mr. Smith opined that periodic inspection and training should be covered in one subsection.

Response:
The Board accepts this comment and has proposed modifications to address Mr. Smith's concerns regarding clarity and duplication. (See also Board's response to Mr. Smith's comment no. 16, as well as Board's response to Ms. Treanor's comment no. 10 and Ms. Howe's comment no. 8 below.)

Comment No. 14:
Mr. Smith opined that the frequency of training should be at least annually.

Response:
The Board declines to require annual training, but notes that the necessity for and frequency of required training is addressed in Section 3203.

Comment No. 15:
Mr. Smith opined that the training should include both demonstration and practice, as with the forklift safety training regulation.

Response:
The Board believes these concerns are addressed in Section 3203, and therefore declines this comment.

Comment No. 16:
Mr. Smith states that the intent and purpose of the "periodic inspection" is unclear. He questioned whether it is to evaluate the continued effectiveness or necessity for updating the written procedures, or is it a matter of examining the machine/equipment and then identifying all hazardous energy sources and their controls.

Response:
A Federal OSHA interpretation[6] of the federal counterpart standard in 29 CFR 1910.147(c)(6), states three purposes of the inspection: (1) determine whether the steps of the energy control procedure are being followed, (2) determine whether the employees involved know their responsibilities under the procedure; and (3) determine whether the procedure is adequate to provide the necessary protection, and what changes, if any, are needed. This interpretation was reaffirmed in a Letter of Interpretation addressed to Mr. Lawrence Halprin, Esq., dated September 19, 1995.[7] The Board believes that points #1 and #2 are already addressed by GISO Section 3203(a)(2), and therefore, this standard need only address equivalency with point #3. The Board proposes to modify 3314(h) to clarify that the intent and purpose of the periodic inspection is to evaluate the continued effectiveness or necessity for updating the written procedure(s).

Comment No. 17:
Mr. Smith stated that the proposal needs to take into consideration that an "authorized" or "affected" employee often deals with more than one machine/equipment. He noted that he has clients that have such employees dealing with dozens or even hundreds of machines/equipment.

Response:
The Board notes that it is difficult to develop a "one-size-fits-all" standard. Large employers with many "authorized' or "affected" employees and/or many machines or equipment may request a variance as set forth in Labor Code Section 143 from this standard by proposing alternate methods, means and/or procedures which will provide equivalent safety.

The Board thanks Mr. Smith for his comments and participation in the Board's rulemaking process.

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[6] US DOL, OSHA Standard Interpretation of 29 CFR 1910.147(c)(6). Letter dated August 5, 1994, to Mr. M.L. Hall, Program Safety Manager, IBM, Somers, NY.
[7] US DOL, OSHA Standard Interpretation of 29 CFR 1910.147(c)(6). Letter dated September 19, 1995, to Mr. Lawrence P. Halprin, Law Offices of Keller and Heckman, Washington, DC.

Mr. Willie Washington, Director, Safety and Health, California Manufacturers & Technology Association (CMTA), by letter dated January 14, 2004.

Comment No. 1:
Mr. Washington stated that employers should be able to find the rules covering the control of hazardous energy in Title 8 by searching under the heading "lockout/tagout."

Response:
The proposed new title for Section 3314 is: "The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout." Although this title is rather long, it does include the phrase "lockout/tagout" at the request of committee members for the same reason stated by Mr. Washington: it facilitates searches for lockout/tagout standards.

Comment No. 2:
Mr. Washington stated that the CMTA is supportive of the addition of the "application" and "definitions" sections. However, they would like the term "setting-up" defined.

Response:
The advisory committee discussed defining the term "setting-up" at length and was unable to reach consensus agreement on the need for, nor the definition of the term. As a result, Board staff does not believe the term can be adequately defined. Therefore, the Board declines to define the term "setting-up."

Comment No. 3:
Mr. Washington requested that terms relating to employees be defined within the standard, rather than referring employers to Section 3207.

Response:
Mr. Washington did not specify the "terms relating to employees," but the Board assumes these terms include: "affected employee" and "authorized employee." Based on similar comments received during the 45-Day public comment period, the Board accepts this comment to the extent that the terms "affected employee" and "authorized employee" have been defined based on corresponding federal definitions. In response to other comments received, the reference to "qualified person" in subsection (h)(1) has also been deleted.

Comment No. 4:
Mr. Washington stated that the CMTA is concerned that the proposal does not clear up confusion already embedded in the current rule and that some changes may make both worker and employer compliance with lockout/tagout rules more difficult due to unclear or conflicting terms and responsibilities.

Response:
Without specific comments, the Board is unable to respond to CMTA's concerns. The advisory committee consensus was for a performance-oriented standard. Owing to the broad scope of

industries and equipment the standard must apply to, it is difficult to develop a performance-oriented standard that is ideal for all those regulated. The Board has responded to a number of other more specific comments received during the public comment period, and is hopeful that Mr. Washington's concerns will be addressed by those responses.

Comment No. 5:
Mr. Washington stated that CMTA urges that the proposal be returned to advisory committee for further review and work.

Response:
The Board respectfully invites the commenter to review the modifications made as a result of comments received during the public comment period, and is hopeful that the responses made may negate his belief in the need to reconvene the advisory committee.

The Board thanks Mr. Washington for his comments and participation in the Board's rulemaking process.

Ms. Elizabeth Treanor, Director, Phylmar Regulatory Roundtable, by letter dated January 15, 2004.

Comment No. 1:
Ms. Treanor stated that she is pleased that the title includes the words "Lockout/Tagout," which she said is the customary term used in industrial environments, and thus facilitates searches of Title 8 safety orders for relevant standards, especially for those unfamiliar with Title 8; however, she expressed concern that the title is overly long.

Response:
The Board notes that the title is the result of advisory committee consensus. Consequently, the Board declines to modify the section title.

Comment No. 2:
Ms. Treanor stated that they would like the terms "affected employee," "authorized employee," and "setting-up" defined consistent with federal counterpart terminology. Ms. Treanor stated that they disagree with the advisory committee's conclusion that it is not possible to define the term "setting-up" to cover all industries and processes that could be affected, and recommended using the federal definition which states, "Any work performed to prepare a machine or equipment to perform its normal production operation."

Response:
With respect to defining "setting-up," the advisory committee specifically considered the Federal OSHA definition. Board staff agrees with the advisory committee's conclusion that the federal definition cannot be used owing to differences between the state and federal standards in the usage of some terms. The committee was of the opinion that the federal definition of "setting-up" could apply not only to setting-up operations, but to adjusting operations as well, as used in this proposed standard. Because of the performance-oriented approach of the proposed standard,

Board staff agrees with the committee's consensus that the federal definition would be confusing if used in the California standard. The Board therefore declines to define "setting-up" in this standard. However, the Board has modified the proposal to define the terms "affected employee" and "authorized employee" using definitions consistent with the federal standard. These definitions have been added to subsection (b). (See comment no. 8 that follows for further discussion.)

Comment No. 3:
Ms. Treanor requested an alternative to placing accident prevention signs or tags on the power source during cleaning, servicing and adjusting operations. Some of their clients use a uniform system with unique, personally identifiable locks that are placed on the source of energy; therefore, they believe the requirement for signs and/or tags is redundant and unnecessary. Ms. Treanor noted there is no counterpart federal requirement, and recommended that a note be added to read: "Where an employer has a uniform system with unique personally-identifiable locks that are placed on the source of energy, no accident prevention signs or tags are necessary."

Response:
The Board notes the difficultly in developing a "one-size-fits-all" standard; however, employers may request variances from this standard under the provisions of Labor Code Section 143 by proposing alternate methods, means and/or procedures which will provide equivalent safety. **[For an updated response to this comment resulting in a subsequent proposal modification, please see the Board's response to Ms. Judith Freyman's comment received during the First 15-Day Notice of Proposed Modifications.]**

Comment No. 4:
Ms. Treanor requested that with respect to situations in which a group lock is used (e.g. multiple energy sources), that the tag be permitted to be placed on the lock box rather than on each individual lock. Ms. Treanor suggested that requirements similar to 29 CFR 1910.147(f)(3), group lockout or tagout, be included in the proposed regulations; i.e.:

> *"(i) When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device.*
> *(ii) Group lockout or tagout devices shall be used in accordance with the procedures required by [1910.147(c)(4)] including, but not necessarily limited to, the following specific requirements:*
> *(A) Primary responsibility is vested in an authorized employee for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock);*
> *(B) Provision for the authorized employee to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment and*
> *(C) When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility to an authorized employee designated to coordinate affected work forces and ensure continuity of protection; and*

(D) Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained."

Response:
The Board notes that this issue was neither raised nor discussed at the advisory committee. Committee consensus was that by crafting a performance-oriented standard, it would not be necessary to address every unique situation. The Board is of the opinion that this issue is covered in general terms by the performance-oriented language of the proposal, primarily in Section 3314(g). However, should the public prefer the standard to address this issue more specifically, they may petition the Board for a separate rulemaking under the provisions of Labor Code Section 142.2. The Board therefore declines to incorporate the changes proposed by Ms. Treanor at this time.

Comment No. 5:
Ms. Treanor objected to the proposed deletion of the phrases "a sufficient number of…" and "reasonably foreseeable…" in Section 3314(e), which she believes gives clarity and specificity to the requirement.

Response:
These phrases are vague and unenforceable as no reference standard is provided or available to measure what is "sufficient" and "reasonable." The Board therefore declines to accept this comment.

Comment No. 6:
With respect to Section 3314(g)(2), Ms. Treanor notes that there are two subsections [Exceptions to (g)(2) and subsection (g)(2)(A)] which they believe overlap and conflict, and that rather than clarifying requirements, they will further confuse a highly complicated area within both federal and California standards. Ms. Treanor noted that the proposed 8-part exception to subsection (g)(2) contains the eight elements included in the Federal OSHA standard, which would bring California's standard into conformity with its federal counterpart. However, in proposed subsection (g)(2)(A), there are separate instructions for the safe lockout/tagout of each machine with an additional three-part exception. Ms. Treanor believes that adopting proposed subsection (g)(2)(A) will create additional confusion in this already highly complicated area, and that this subsection goes beyond the federal requirements contained in 1910.147(c)(4)(i). Consequently, she recommends that (g)(2)(A) be deleted in its entirety.

Response:
The Board received several other comments regarding subsection (g)(2) [see comments by Smith, Howe and Bonetto]. As noted by Ms. Treanor, this issue is highly complicated in Federal OSHA, and several interpretations have been written in an attempt to clarify it. Federal Letters of Interpretation have no regulatory effect in California. This limitation was taken into consideration by the advisory committee in crafting the consensus. The Board has considered all comments received and has modified the proposal to be consistent with the advisory committee

consensus. Therefore, the Board accepts this comment to the extent that modifications to subsection (g)(2) are proposed which eliminate overlap and conflict thereby clarifying the requirements.

Comment No. 7:
With respect to Section 3314(h)(1), Ms. Treanor questioned the appropriateness of the "upgrade" in skill level from periodic inspections being performed by an "authorized employee" to the proposed "qualified person." Ms. Treanor noted that this is the first time the term "qualified person" is used in this standard and that the term is not used in the federal standard at all. Ms. Treanor recommended that the Board permit employers to use third party auditors or outside contractors to perform the inspections, and proposed modifying (h)(1) as follows (modification underlined):

> *"The periodic inspection shall be performed by an authorized employee or authorized person other than the one(s) utilizing the hazardous energy control procedures being inspected."*

Response:
The Board accepts this comment, which is similar in nature to Mr. Smith's first comment. Definitions of "authorized employee or person" and "affected employee" have been added to subsection (b), and subsection (h)(1) has been modified largely consistent with Ms. Treanor's suggestion.

Comment No. 8:
Ms. Treanor noted that Section 3314(h)(2) requires that the annual periodic inspection include a review between the inspector and each authorized employee of that employee's responsibilities under the hazardous energy control procedure being inspected. Ms. Treanor stated that this proposal does not take into consideration the implementation by large and complex establishments. She cited, as an example under this proposal, an employer with 300 maintenance personnel and 5,000 separate procedures would need to review each procedure annually with each authorized employee, for a total of 1.5 million separate reviews each year. Ms. Treanor agreed that each procedure must be reviewed, but that each procedure need not be reviewed with each authorized employee. Therefore, the commenter recommended that employers be permitted to inspect and audit a representative sample of procedures, and cited a Federal OSHA Interpretation letter[8] in support of their request. Ms. Treanor recommended that section 3314(h) be revised as follows:

> *"The employer shall conduct a periodic inspection of a representative sample of the hazardous energy control procedure(s) at least annually to ensure that the procedure and the requirements of this section are being followed."*

[8] ibid.

Response:
As noted in response to Mr. Smith's comment no. 16, periodic training issues are already covered under GISO Section 3203(a)(2). However, the Federal OSHA Interpretation of the counterpart 1910.147(c)(6)(i)[9] states that:

> *"The employee performing the periodic inspection does not have to observe every authorized employee implementing the energy control procedure on the machine or equipment on which he or she is authorized to perform servicing and maintenance to meet the review requirements…*
> *"The inspector participating in the review needs to:*
> 1. *observe a representative number of such employees while implementing the procedure, and*
> 2. *talk with all other authorized employees even though they may not be implementing the energy control procedure."*

The Board accepts this comment in part; however, it has a concern with incorporating "representative sample" into the standard, as many businesses with few machines/equipment subject to lockout/tagout standards can perform the periodic inspection on all machines and with the participation of all authorized personnel. The Board therefore proposes to modify (h)(2) with performance-type language to cover a broad number of situations.

Comment No. 9:
With respect to the training requirements in Section 3314(j), Ms. Treanor believes the proposed language is confusing, especially for companies with operations in states covered by the Federal OSHA standards. Specifically, 1910.147(c)(7) requires that each authorized employee receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control. Affected employees need only be instructed in the purpose and use of the energy control procedure.

Ms. Treanor opined that the proposal considerably expands the number of employees who must be trained, but believes that the intent was that "authorized employees" receive the detailed training described above, and that "affected employees" receive instruction. She therefore recommended the following modifications:

> *"(j) Training.*
> *(1) ~~Affected~~ Authorized employees shall be trained on the hazardous energy control procedures and on the hazards related to performing any activity required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment.*
> *(2) Each affected employee shall be instructed in the purpose and use of the energy control procedure.*
> *(3) All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the*

[9] ibid.

prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out."

Ms. Treanor also recommended the deletion of proposed subsection 3314(j)(2), as this requirement is already contained in Section 3203.

Response:
The Board accepts this comment and has modified subsection (j) accordingly.

Comment No. 10:
Ms. Treanor opined that the proposal, while it may have been intended to clarify issues, will create additional confusion, and is not ready for the Board's consideration at this time. She recommended that the advisory committee be reconvened to address in more detail the issues that have been raised.

Response:
The Board has carefully considered all written and oral comments received during the public comment period, and is of the opinion that modifications made as a result of comments received will address most, if not all, Ms. Treanor's concerns without the need to reconvene the advisory committee.

The Board thanks Ms. Treanor and the Phylmar Regulatory Roundtable for their comments and participation in the Board's rulemaking process.

Mr. John Bobis, P.E., Ph.D., Environmental Health & Safety, Aerojet, by letter dated January 15, 2004.

Comment:
Mr. Bobis stated that the proposed rulemaking would directly affect Aerojet's operations. He opined that the proposal does not reflect the committee's consensus due to changes that were made subsequent to the meeting. He added that, in his opinion, the changes include unclear, duplicating, confusing or conflicting terms, requirements, and responsibilities.

Mr. Bobis emphasized that existing regulations, based on decades of California history, are performance oriented, consistent with the provisions of the Administrative Procedure Act (APA). He stated that he does not believe the proposal meets the legislatively mandated criteria. He concluded by stating that the proposal is not ready for adoption and strongly urged that the matter be referred back to advisory committee for further deliberation.

Response:
The Board has carefully considered all written and oral comments received during the public comment period and has made modifications as a result of comments received. Although the Board is not bound by advisory committee consensus, many of the modifications made revert back to the substance of the consensus proposal. The Board is of the opinion that these

modifications will address most if not all concerns without the need to reconvene an advisory committee, and therefore declines to reconvene the advisory committee at this time.

The Board thanks Mr. Bobis for his comments and participation in the Board's rulemaking process.

Ms. Julianne Broyles, Director, Employee Relations & Small Business, California Chamber of Commerce, on behalf of the California Employers Coalition, by letter dated January 15, 2004.

Ms. Broyles stated that these comments are being submitted on behalf of the California Employers Coalition (Coalition). The coalition is comprised of the following trade associations and companies, which are signatory to these comments:

American Electronics Association
Associated General Contractors
Automotive Aftermarket Services, Inc.
California Chamber of Commerce
California Farm Bureau Federation
California Grocers Association
California Manufacturers and Technology Association
California Restaurant Association
Knight-Ridder, Inc.
Lumber Association of California and Nevada

Ms. Broyles stated that the California Chamber of Commerce (Chamber) is a non-profit organization whose membership is made up of over 14,000 member companies employing some 3 million workers, one-fourth the private sector work force in California.

Comment No. 1:
The Chamber and the Coalition believe that protecting employees from the unexpected start-up of machinery is critically important. However, they believe the proposed amendments to Section 3314 do not clear-up confusion already embedded in the current rule. In their opinion, the proposed amendments will make compliance even more difficult due to unclear or conflicting terms, requirements and responsibilities.

Response:
The Board is unable to respond to this comment without specifics; however, the Board hopes modifications based on the specific comments of others will address the concerns of the Chamber and the Coalition as well.

Comment No. 2:
The Chamber and Coalition believe that the Initial Statement of Reasons fails to contain any data to support the assertion that there will be no economic impact on California businesses or job creation.

Response:
The Board asked the advisory committee for input on cost impact, and no significant input was provided by the committee. Comments received during the public comment period have identified areas of ambiguity, which could potentially have a significant cost impact. The Board is of the opinion that modifications made in response to comments received will eliminate cost impacts.

Comment No. 3:
The Chamber and Coalition oppose the proposal and recommend that it be sent back to advisory committee for additional refinement and clarification.

Response:
For the reasons provided in response to Mr. Bobis' comment above, the Board declines to reconvene the advisory committee at this time.

The Board thanks the Chamber and the Coalition for their comments and participation in the Board's rulemaking process.

Ms. Susan R. Howe, Senior Technical Director, Worker & Product Safety, The Society of the Plastics Industry, Inc. (SPI), by e-mail dated January 13, 2004.

Ms. Howe stated that the SPI is the trade association for one of the largest manufacturing industries in the United States. Their 1,300 members represent the entire plastics industry supply chain, including processors, machinery and equipment manufacturers and raw materials suppliers. The U.S. plastics industry employs more the 1.5 million workers and provides more than $320 billion in annual shipments. Ms. Howe noted that a substantial portion of SPI's members have operations in California and would be affected by any changes to the lockout/tagout standards of Section 3314. Ms. Howe stated that the SPI supports the Board's efforts to bring Section 3314 into greater conformity with federal counterpart standards, and to reflect commonly used terminology.

Comment No. 1:
Ms. Howe noted that Federal OSHA is in the midst of overhauling the compliance directive for its lockout/tagout standard with a draft expected to be available for public comment in early 2004. Given all the developments in the law, technology and lockout/tagout practices that have occurred since the federal standard was promulgated in 1989, and because one of the purposes of the proposed California rulemaking is to achieve equivalency with federal standards, Ms. Howe recommended staying the proceeding until the revised federal document can be evaluated.

Ms. Howe noted that the federal standard was the subject of a Section 610 Review under the Regulatory Flexibility Act, which determined that the standard was not well understood, particularly by small businesses. As a result, Federal OSHA announced that it would be developing a new compliance directive to clarify the evolving interpretation of the standard in light of enforcement experience, court decisions, etc. The draft, revised instruction would supersede Compliance Directive 1-7.3.

Ms. Howe stated that the revised directive is expected to address many of the same issues that are the subject of the California proposal; e.g., minor servicing activities, equipment-specific written procedures, group lockout/tagout, annual review and training, and alternative protective measures. Therefore, Ms. Howe recommended that the proposed California standard be stayed until the Federal OSHA revised directive is finalized.

Response:
The Board has been unable to ascertain any date for publication of the update to the compliance directive. Should any such update be published before the California standard is finalized, the Board will review and consider its impact. In the meantime, the Board declines to stay the rulemaking process while waiting for clarification from Federal OSHA, which may still be quite some time.

Comment No. 2:
Ms. Howe notes that the current federal standard was issued in 1989 and is largely based on ANSI Z244.1-1982. Ms. Howe is of the opinion that the proposed modifications should include a provision to permit compliance with ANSI Z244.1-2003 as one means of compliance with the standard.

Response:
The subject of incorporating ANSI Z244.1-2003 in some form was discussed at the advisory committee. While some committee members wanted the committee to make reference to this new standard, there was no consensus among members to do so. Therefore, the Board declines to modify the proposal to permit compliance with ANSI Z244.1-2003 as a means of complying with the standard.

Comment No. 3:
Ms. Howe recommended that the proposal define additional terms critical to compliance, i.e., "minor servicing activities" and "alternative means of protection," and that ANSI Z244.1-2003 should be used as the basis for these definitions.

Response:
Exception 1 to subsections (c) and (d) makes reference to "minor servicing activities" and "alternative means of protection." This exception is effectively verbatim of Federal OSHA's exception to 29 CFR 1910.147 subparagraph (a)(2)(ii). Federal OSHA does not define these terms, neither could the advisory committee reach consensus on their definition. Although, as Ms. Howe noted, ANSI Z244.1-2003 deals with these terms, because there was no committee consensus for using that standard. Board staff does not agree that those definitions should be used. Therefore, the Board declines to define these terms.

Comment No. 4:
With respect to subsection 3314(g)(2)(A), Ms. Howe stated that the Board should not adopt a requirement to develop equipment-specific lockout/tagout instructions/procedures for each type or piece of equipment, and that such a requirement is inconsistent with the original intent of the federal standard. Ms. Howe noted that Fed OSHA issued an invalid "technical amendment" to

the federal standard in 1990, and that the federal standard does not require equipment-specific energy control procedures for each type or piece of equipment. They cited a recent decision[10] of the Occupational Safety and Health Review Commission (OSHRC) to support their view and to reject Federal OSHA's position on the subject. In this decision, the ALJ stated:

> *"The standard, by its terms, does not require an employer to identify each specific piece of equipment at its plant requiring lockout procedures. Further, the preamble to the standard clarifies that the requirement that a plan provide detailed instructions does not necessitate that an employer identify each machine. In warning against creating overly complicated plans, the preamble explains that the employer's procedures may not need to be unique for a single machine or tasks, but can apply to a group of similar machines, types of energy and tasks if a single procedure can address the hazards and the steps to be taken satisfactorily. While the plan should be detailed, there is no requirement for a separate procedure for each and every machine or piece of equipment. Similar machines and/or equipment which have the same or similar types of controls can be covered with a single procedure."*

Thus, Ms. Howe opined that the OSHRC interpretation clearly states that an employer could use one, detailed procedure which would be adequate for many different pieces of machinery or equipment.

Response:
The Board accepts this comment to the extent that it has modified subsections (g)(2) and (g)(2)(A) in response to this and several other comments received during the public comment period. The modified proposal contains an exception to subsection (g)(2)(A), which provides for a single procedure that can cover a group or type of machinery or equipment when either of two prescribed conditions exists. In addition, Labor Code Section 143 makes provision for employers to request a permanent variance from Title 8 safety orders provided they are able to provide equivalent or superior safety through alternate programs, methods, practices, means, devices, or processes.

Comment No. 5:
Ms. Howe expressed concern about the potential economic impact of this proposed requirement. Beyond the costs of developing detailed written procedures for each piece of equipment, the language could be interpreted to impose a substantial and unnecessary burden of conducting an annual audit of the application of each equipment specific procedure and reviewing the results with every authorized or affected employee.

Similarly, Ms. Howe stated that the burden of training every authorized employee on the details of the equipment-specific energy control procedure for every piece of equipment on which he/she may be called upon to perform a maintenance or servicing activity, rather than taking a more generic approach, would be cost prohibitive.

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[10] 2003 OSHARC Lexis 41 at *53; 20 OSHC (BNA) 1102 (Rev. Comm. 2003)

Response:
The Board acknowledges Ms. Howe's concerns and accepts this comment. Modifications have been made to subsections (g), (h) and (j) which the Board believes will address those concerns by clarifying documentation requirements, the purpose of the periodic inspection, and by specifying different training requirements for authorized and affected employees.

Comment No. 6:
Ms. Howe stated that the proposed exception to Section 3314(g)(2)(A) would create an exemption from the requirement to provide instructions for each machine when a group of machines have "operational controls" that are configured "in a similar manner" and the energy control steps "are similar." Though Ms. Howe appreciates the effort to provide a more flexible approach, she believes it is too restrictive as written and is concerned that it will be interpreted by compliance personnel to apply only to virtually identical machines.

Response:
The proposal has been modified to be substantially the same as the consensus agreement. The advisory committee consensus was, and Board staff agrees, that "similar" cannot be reasonably interpreted as "virtually identical." The Division of Occupational Safety and Health, Research and Standards Unit, likewise concurs. The Standards Board accepts this comment as being a request for clarification of (g)(2)(A) and is of the opinion that modifications made have addressed Ms. Howe's concerns.

Comment No. 7:
Proposed subsection (j) calls for training each employee on "the hazardous energy control procedures." As noted above, proposed Section 3314(g)(2)(A) calls for written hazardous energy control procedures for each machine or piece of equipment. When the training requirement is read in light of proposed Section 3314(g)(2)(A), it could be interpreted to require that affected employees shall be trained on the hazardous energy control procedures for each machine. Ms. Howe raised the concern about maintenance personnel who must work on multiple machines. She stated that maintenance personnel should be trained on the general principles of the lockout/tagout devices that they will use, and should be trained to be able to review the written energy control instructions applicable to the assigned tasks and then safely perform the task, rather than being trained on every machine they might conceivably be required to work on.

Response:
The Board accepts this comment and is of the opinion that modifications made to subsections (g)(2), (g)(2)(A), (h) and (j) will offer sufficient clarity to address the concern regarding maintenance personnel, including contract personnel, who may be called upon to work on multiple machines. Subsection (j) has been modified to require that authorized personnel be trained on energy control procedures. In the case cited by Ms. Howe, this could reasonably be interpreted to include training in the general principles of lockout/tagout devices to be used and would require that an employee be trained on how to review the written energy control instructions applicable to the assigned tasks and how to safely perform the task, rather than being trained on every machine they might conceivably be required to work on. The Board adds that

owing to the wide variety of situations that can be encountered, it is difficult to develop a standard that will address all circumstances with a degree of specificity that might be preferred.

The Board emphasizes, as mentioned previously, that the committee's goal was to use a performance-oriented approach to lockout/tagout standards.

Comment No. 8:
Ms. Howe requested that 3314(h) be clarified to require an annual review of the employer's general procedure, and not an annual review of the instructions for each machine. Ms. Howe stated that an annual hands-on review of the application of lockout/tagout procedures for each piece of equipment, given the requirement for separate instructions for each machine in 3314(g)(2)(A), would require an unnecessary commitment of resources to lockout/tagout audits.

Response:
The Board accepts this comment to the extent that subsection (h) has been modified to clarify that the purpose of the review is to evaluate the continued effectiveness or necessity for updating the written procedure(s).

Subsection (h)(2) has been modified so that the periodic review between the inspector and the authorized employee(s) need not necessarily be a "hands-on" review. However, it should be kept in mind that the periodic review must also satisfy the requirements of the Injury and Illness Prevention Program in GISO 3203, including subsection (a)(4) of that section.

Comment No. 9:
Ms. Howe requested further clarification that the required periodic review can be satisfied by 1) observing a representative number of authorized employees while implementing the procedure, and 2) observing at least one application of the procedure to each basic type of energy isolating device (e.g., electrical disconnect, valve, blind/blank, blocking pin) and each basic type of locking device (e.g., lock, chain, etc.). Ms. Howe asked that the Board revise its "Periodic Review" requirement [subsection 3314(h)] to incorporate this performance-based approach.

Response:
The Board accepts this comment to the extent that subsection (h) has been modified as discussed in the response to comment no. 8 above. Further discussion of the issue of "representative sample" can also be found in responses to Ms. Treanor's written comment no. 9, and Mr. Smith's oral comment no. 2.

The Board thanks Ms. Howe and the SPI for their comments and participation in the Board's rulemaking process.

Mr. Lawrence P. Halprin, Keller and Heckman LLP, by e-mail dated January 15, 2004.

Keller and Heckman LLP submitted comments addressing the concerns of some California employers they represent who would be affected by the proposed changes. Mr. Halprin stated that Keller & Heckman supports efforts to update Section 3314 to reflect common usage and to

conform with certain well-established provisions of the federal standard codified in 29 CFR 1910.147. However, they want California to maintain its performance-based approach that has worked fairly well, in favor of a federal regulatory scheme that remains under a legal cloud with respect to a 1990 amendment and which is burdened with ambiguities, inherent inconsistencies and reliance on outdated technology.

Comment No. 1:
Mr. Halprin briefly summarized the history of the development of the federal lockout/tagout standard dating back to 1977, and noted that a number of important issues had not been resolved prior to its promulgation on Labor Day 1989. He opined that a subsequent 'Technical Corrections' notice published in 1990 to address some of those issues, as well as to address pending legal challenges, resulted in an extensive rewrite. According to his firm and the employers they represent, this rewrite made what they consider to be substantive amendments that were improperly adopted, invalid and unenforceable. He therefore questions whether California should proceed in conforming to a rule that, at least in part, was not properly adopted and presents so much uncertainty.

Response:
The Board does not have authority to make determinations on the legality of federal regulatory adoptions. Until Federal OSHA revises or modifies its standard, California is obligated by Labor Code Section 142.3 to adopt standards at-least-as-effective-as the [published] federal standards. The Board notes that Mr. Halprin has also submitted comments to Federal OSHA pertinent to clarifications to be published at some future date in the form of a Compliance Directive [STD 1-7.3]. These clarifications have been a number of years in the making, having been mentioned at the May 22-23, 2002, ad hoc advisory committee as being forthcoming. Recent inquiry with Federal OSHA indicates they do not yet have a specific target date for publication.

The Board accepts Mr. Halprin's comment to the extent that the state has latitude for clarifying the federal standards, subject to Federal OSHA review. The proposal has been modified with the intent of clarifying ambiguities in the federal standard.

Comment No. 2:
Mr. Halprin requested that the Board defer any final action on the proposal until the forthcoming Federal OSHA Compliance Instruction is published.

Response:
The Board has been unable to determine a forecast publication date from Federal OSHA. Given the time that has already passed in the development of the instruction or directive, California is obligated to proceed in modifying Section 3314 based on the current standard.

Comment No. 3:
Mr. Halprin requested that the Board explicitly recognize that compliance with ANSI Z244.1-2003 be deemed in compliance with comparable provisions of Section 3314.

Response:
The Board notes that there was no advisory committee consensus to adopt ANSI Z244.1 in whole or in part. Therefore, the Board declines to modify the proposal to provide that compliance with ANSI Z244.1-2003 be deemed in compliance with comparable provisions of Section 3314.

Comment No. 4:
With respect to the application of the "minor servicing" exception to "setting-up" activities [Section 3314(d), Exception 1], Mr. Halprin suggested that rather than focusing on whether something qualifies as a set-up activity, the focus should be on the nature of the activity, consistent with the approach taken by ANSI Z244.1-2003 which describes "tasks that are routine, repetitive and integral to production" as generally exhibiting most of the following characteristics:

- Short in duration.
- Relatively minor in nature.
- Occur frequently during the shift, day or week.
- Usually performed by operators, set-up, service or maintenance personnel.
- Do not involve extensive disassembly.
- Represent predetermined cyclical activities.
- Expected to occur regularly.
- Minimally interrupt the production process.
- Exist even when optimal operating levels are achieved.
- Require task-specific personnel training.

The Z244.1 standard goes on by clarifying:

> *"The reason for intervention (i.e. perform the task) is to sustain the machine, equipment or process continuity within the nominal performance range and output quality. This usually occurs when the machine, equipment or process is operating normally and the need for periodic service or adjustment is predictable based on operating experience and product demands.*
>
> *"Each user should inventory and examine all tasks deemed to be 'routine, repetitive and integral to production' and determine if they possess the above characteristics before proceeding in the development of alternative methods based on risk assessment. If the tasks do not substantially conform then lockout/tagout should be used."*

Mr. Halprin disagrees with a Federal Review Commission case[11] that concluded that set-up activities are not something that take place during normal production, and therefore, no set-up activity is covered by the minor servicing exception. Mr. Halprin opined that this is contrary to the plain language of the exception, which explicitly includes "minor tool changes" and that clearly does not take place while the machine or equipment is being utilized "to perform its intended production function." Mr. Halprin opined that the phrase "minor tool changes" is

[11] Secretary v. Westvaco Corp, 1993, OSHARC Lexis 140

generally thought to include, for example, the changing of a bit on a drill press or a cutting tool on a lathe, where equipment is hard-wired and the plug and cord exception does not apply. In his opinion, the "minor servicing activity" exception has always been viewed as applying to those activities. He comments that Federal OSHA appears to have taken the position that changing a grinding wheel on a pedestal grinder or a blade on a circular saw is not a minor servicing activity.

Response:
The Board interprets the thrust of this comment to be similar to several others requesting definitions of terms, including Ms. Howe's comment no. 3 which included a request to define "minor servicing activities," and Ms. Treanor's comment no. 3 which requested a definition for "setting-up." For reasons stated in those responses, as well as the response to Mr. Halprin's comment no. 3 above, the Board declines to define these terms and declines to incorporate ANSI Z244.1-2003 in whole or in part.

Comment No. 5:
Mr. Halprin stated that the standard should explicitly exclude machines where control circuitry reliably eliminates the potential for unexpected energization. Mr. Halprin cited a court decision that ruled that where a machine's control circuitry and integrated warnings (e.g., alarms, lights) provided adequate advance warning to an employee of a machine's re-energization, the worker is not exposed to the hazard of unexpected energization, and therefore 1910.147 does not apply.[12] In other words, where advance notice is provided by start-up warning sequences, re-energization is not unexpected. In two other cases, judges ruled that the federal standards were intended to protect employees only from the unexpected reactivation of equipment attributable to inadvertence, not from deliberate and malicious actions of another individual such as individuals who cannot fail to see the operator in the hazardous location.[13,14] Mr. Halprin noted that in all three cases, safeguarding relied on circuitry and alarms, or control circuitry under direct observation, to prevent exposure to unexpected energization. Given the acceptance of those measures as adequate to prevent exposure to unexpected energization, Mr. Halprin believes the proposal should be clear that a properly wired and reliable control circuit with an emergency stop locked in the "off" position or an interlocked guard with redundant, tamper-resistant interlocks, that is interlocked in the protected mode, similarly eliminates the potential for exposure to unexpected energization.

Mr. Halprin therefore suggested that to eliminate confusion in the scope of the standard, the Board incorporate language that reads substantially as follows:

> *"This section does not apply where the use of reliable control circuitry or other measures eliminates the potential for unexpected energization or start-up of the machine or release of stored energy that could cause injury to employees."*

[12] Secretary v. General Motors Corp. Delco Chassis Division, 89 F..3d 313 (6th Cir. 1996)
[13] 1992 OSAHRC Lexis 156
[14] 1992 OSHRC Docket No. 02-2175 (2002)

Response:
The Board believes this comment is made in reference to Section 3314(a), Application. Concerns about control reliability were raised in Mr. Welsh's comment no. 1, and the Board agrees that a determination of reliability must be made using a case-by-case hazard analysis. The Board therefore declines to include the proposed exclusion from Section 3314; however, employers may, by means of the variance process set forth in Labor Code 143, apply for variances on a case-by-case basis.

The Board thanks Mr. Halprin for his comments and his participation in the Board's rulemaking process.

II. Oral Comments

Oral comments received at the January 15, 2004 Public Hearing in Glendale, California.

Mr. Mariano Kramer, Senior Safety Engineer, Division of Occupational Safety and Health (Division), Research and Development Unit.

Comment:
Mr. Kramer expressed concern about the inclusion of the term "interlocks," which he stated was included after the advisory consensus. He believes the term is generic and will cause confusion, and therefore favored its removal from the proposal. In support of his position, Mr. Kramer provided the Board with a copy of a study that was done by the Health and Safety Executive Committee in Britain, entitled "Safety at Thermal Forming Machines."

Response:
The Board accepts this comment and proposes to delete the reference to "interlocks" from subsection 3314(c)(1).

The Board thanks Mr. Kramer for his comment and participation in the Board's rulemaking process.

Mr. Gerald Bonetto, Vice President, Government Affairs, representing the Printing Industries of California.

Comment No. 1:
Mr. Bonetto stated that his organization represents about 3,100 member companies. He noted that he had participated in the advisory committee and expressed concern that the proposal, as noticed, contained several modifications, additions and subtractions, from the advisory committee consensus proposal. He submitted for the record a copy of the proposal showing language that had been added and removed from the consensus proposal. He read into the record the changes that had been made and explained why he believed the removed language is clearer and more understandable than the language that was added.

Response:
The Board accepts this comment in part in that, after reviewing and responding to comments received, the Board has reverted back in several cases to the advisory committee consensus. The Board will address changes to the advisory committee consensus proposal noted by Mr. Bonetto as follows:

Comment No. 2:
Subsection (a)(1) was added which reads: "This Section applies to the cleaning, repairing, servicing, setting-up and adjusting of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees."

Response:
This subsection is based in large part on 29 CFR Part 1910.147(a)(1)(i) and is intended to clarify the scope and application of Section 3314. In the absence of objections from any other commenter to the inclusion of this clarification, the Board declines to remove it.

Comment No. 3:
Mr. Bonetto noted that the phrase, "when it is necessary to deenergize or disengage the power source…" was deleted from the last sentence in subparagraph (c), which according to advisory committee consensus would have read: "When it is necessary to deenergize or disengage the power source, accident prevention signs or tags or both shall be placed on the controls of the power source of the machinery or equipment."

Response:
This clause was proposed for deletion since it is duplicative of the first sentence of the subsection which states that "Machinery or equipment capable of movement shall be stopped and the power source de-energized or disengaged…" Given the duplication, the Board declines to reinsert it.

Comment No. 4:
The phase "…including but not limited to interlocks," was added to subsection (c)(1). Board member Arioto asked Mr. Bonetto for further clarification of his concern. Mr. Bonetto indicated that the term covers a broad range of devices and is not sufficiently specific. He went on to comment that the proposal makes general reference to methods of controlling hazardous energy, and only interlocks are specifically listed. He believes this is inconsistent.

Response:
See the Board's response to Mr. Welsh's written comment. The Board accepts this comment and proposes to delete the reference to interlocks.

Comment No. 5:
With regard to subsection (d)(1), Mr. Bonetto opined that the term "effectively" in the phrase "effectively prevent" did not add anything more to the meaning of "prevent." He noted that this modification had not been discussed at the advisory committee, and stated that he felt the

addition could have unforeseen legal ramifications for employers. He therefore asked that it be stricken from the proposal.

Response:
The term "effectively" is currently found in existing Section 3314(d), which is proposed for deletion as being duplicative and overlapping with proposed new subsection (d), thus the term has been added to the new subsection 3314(d) to maintain the same regulatory effect as the current standard. The Board therefore declines to delete the term.

Comment No. 6:
Mr. Bonetto stated that the proposed added term "set-up" is a new term and should be defined.

Response:
Staff believes this comment refers to the term "setting-up" which has been added to the proposal in several places. Advisory committee members felt it was not possible to define setting-up in such a way to cover all industries and processes and that flexibility would be lost if the committee defined this commonly used term. Additional discussion on this subject may be found in the response to Ms. Treanor's written comment no. 3. The Board therefore declines to define "setting-up."

Comment No. 7:
Mr. Bonetto noted that considerable changes have been made to the advisory committee consensus on the subject of documentation [subsection (g)(2)]. He commented that while his understanding was that the changes were verbatim of Federal OSHA, in his opinion they did not add clarity, but rather added a measure of confusion. He recommended going back to the advisory committee consensus in this area.

Response:
In light of other similar comments, the Board agrees that the added language resulted in confusion and did not contribute to clarity. The Board therefore accepts this recommendation and has modified the documentation provisions of subsection (g)(2) back to those substantially the same as the committee's consensus.

Comment No. 8:
With regard to the last sentence in subsection (j), which was added after the advisory committee consensus, Mr. Bonetto commented that he did not believe there was anything in Section 3203 which would require documentation to be kept in the employee's training records. Section 3203 only requires that records be maintained. He stated that in his industry, most employers are small companies with 20 or fewer employees, and that they do not keep individual training records, but rather, they keep records of training in a file. He requested that the proposed standard be clarified that training records not be required to be maintained individually.

Response:
The Board agrees that this amendment inadvertently added restrictive language beyond what is required by the federal counterpart standard, and which was not a part of the consensus

agreement. The Board accepts this comment and has modified subsection (j) consistent with the consensus and with Mr. Bonetto's observation.

Comment No. 9:
Mr. Bonetto concluded by recommending that the Board not adopt the proposal and instead reconvene the advisory committee to review the proposal.

Response:
The Board respectfully declines to reconvene the advisory committee at this time and, instead, invites the commenter to review modifications made as a result of comments received during the public comment period. It is hoped that the responses made will eliminate the need to reconvene the advisory committee.

Comment No. 10:
Board Member Harrison asked Mr. Bonetto about subparagraph (g)(2) of the marked-up consensus proposal which he had presented to the Board. Both Mr. Harrison and Mr. Bonetto were of the opinion that the proposed requirements for machine-specific lockout/tagout procedures are unclear. Board Member Harrison asked Mr. Bonetto his opinion of how subparagraph (g)(2) of the Board's proposal would affect the small employers represented by Mr. Bonetto. Mr. Bonetto stated that he felt the advisory committee's consensus was equivalent to the federal standard, but that they were condensed and simplified making them much more clear and understandable. He felt employers would have difficulty in understanding proposed subsection (g)(2) with the eight-part exception, even though it is essentially verbatim of the federal standard.

Response:
Due to numerous comments received pertaining to subparagraph (g)(2) of the Board's proposal, the proposal has been modified back to be substantially equivalent to the committee consensus. These modifications can be found in (g)(2) and (g)(2)(A).

Comment No. 11:
Board Member Arioto asked Mr. Bonetto to clarify his concerns about the use of the term "interlock" in subsection (c)(1). Mr. Bonetto responded that the term covers a broad range of devices, which in and of themselves do not necessarily deal with the control of hazardous energy. He felt that inclusion of the term would lead to confusion. Board Member Arioto asked whether another term might be better. Mr. Bonetto commented that the proposal is generally non-specific; i.e. "methods or means," and only interlocks are identified specifically. He noted that interlocking includes a whole range of things and not all provide control of hazardous energy.

Response:
The Board accepts this comment and proposes to delete the reference to "interlocks."

The Board thanks Mr. Bonetto for his comments and his participation in the Board's rulemaking process.

Mr. Michael Agbaba, representing Agbaba & Associates.

Comment:
Mr. Agbaba indicated that he was a member of the advisory committee and that he had concerns with the impact of the proposal on the plastics industry, specifically with regard to interlocks. He stated that energy is required to heat the plastics, and if an interlock cuts-off energy to the machine, costly damage to extruders can occur. It is therefore necessary in the plastics industry to be able to service the machine while the plastic is hot and before it solidifies. He went on to state that interlocks are widely used in the plastics industry; however, he believes the proposed provision regarding interlocks should be in a control reliability section, and not under energy control. He commented that hazardous energy can take many forms, including electrical, pneumatic, hydraulic, and mechanical. He emphasized that interlocks are for machine control, not necessarily energy control, and should therefore be deleted in this proposal. Upon further questioning by Chairman Rank, Mr. Agbaba stated that costs to the employer from this proposed requirement would be in the form of increased down time and maintenance resulting from interruptions in the molding process and from plastics being at less than optimal working temperatures.

Response:
The Board accepts this comment and proposes to delete the reference to "interlocks" in 3314(c)(1). For further details, see the Board's response to Mr. Welsh's written comment above.

The Board thanks Mr. Agbaba for his comments and his participation in the Board's rulemaking process.

Ms. Elizabeth Treanor, representing Phylmar Regulatory Roundtable (Roundtable).

Comment No. 1:
Ms. Treanor commended the work that had been done thus far on the proposal. However, she stated that she worked with eleven safety professionals in the review of the proposal, and there are still many portions of the proposal that are not clear. Some of the members of the Roundtable are of the opinion that the proposal should go back to advisory committee for further clarification.

Response:
The Board declines to reconvene the advisory committee at this time. See reasons provided in the response to Ms. Treanor's written comment no. 11.

Comment No. 2:
Ms. Treanor noted that she had submitted written comments on behalf of the Roundtable and proceeded to briefly review those comments.

Response:

Responses to Ms. Treanor's comments may be found in the response to her written comments above.

The Board thanks Ms. Treanor and the Phylmar Regulatory Roundtable for their comments and their participation in the Board's rulemaking process.

Ms. Berta Lippert, speaking on her own behalf.

Comment No. 1:
Ms. Lippert stated that she was speaking on her own behalf but that she works for a company that provides consultation support to the semiconductor industry. She submitted written comments into the record and briefly summarized her serious concerns with the inclusion of interlocks in the proposal based on the following rationales:

1. Interlocks can fail.
2. Interlocks can be defeated.
3. Interlocks might provide effective protection in some industries with mature safety programs and stringent interlock design, use and maintenance; however, their inclusion is too broad to be placed in a standard for general industry.
4. Interlock reliability varies greatly and reliance on them can create a false sense of security.
5. Even properly working interlocks can still permit injuries and fatalities.
6. More effective means of protection are available such as machine guarding, extension tools, etc.

Ms. Lippert concluded by emphasizing that she is opposed to the inclusion of interlocks in the proposed standard.

Response:
The Board accepts this comment and proposes to delete the reference to "interlocks" from Subsection 3314(c)(1). For further details, see the Board's response to Mr. Welsh's written comment above.

The Board thanks Ms. Lippert for her comments and her participation in the Board's rulemaking process.

Mr. David W. Smith, CSP, PE, Consulting Safety Engineer, Ensign Safety and Health Advisory.

Mr. Smith commented that he was a member of the advisory committee, and that although he had submitted written comments, he had a few additional points he wanted to cover.

Comment No. 1:
Mr. Smith agreed with Ms. Treanor's concerns on the matter of periodic inspection; that the reference [in (h)(1)] should be changed from "qualified person" to "authorized person" to allow more flexibility.

Response:
The Board accepts this comment. A definition for "authorized employee or person" has been added to subsection (b), and subsection (h)(1) has been modified from "qualified person" to "authorized employee or person."

Comment No. 2:
With respect to subsection (h)(2), Mr. Smith stated that the review of procedures conducted during the periodic inspection should be with a representative number of authorized employees, rather than "each authorized employee." He noted that some businesses have many "authorized" employees. He suggested that rather than use the federal language, he would propose to change the phrase "periodic inspection" to "periodic procedure evaluation" for clarity; the objective being to assure that the procedures are as effective as possible and that they be reviewed at least annually. This would also clarify that this is not a training function, but rather a feedback to make sure the procedures are as valid as possible.

Response:
The Board elects to retain the title of Section 3314(h) as "Periodic inspection" to assist employers who have operations in federal states in locating the California counterpart to 29 CFR 1910.147(c)(6); however, the Board proposes to clarify the intent of the federal standard by modifying the regulatory text to clarify that the purpose of the inspection is to evaluate the continued effectiveness or necessity for updating the written procedure(s).

The Board therefore accepts this comment to the extent that it acknowledges there is confusion and controversy over the requirements of the federal standard. The Board proposes to make clarifying modifications. Since California training provisions are found in GISO Section 3203, this section need only clarify provisions of the federal standard pertaining to evaluation of the written procedures.

Comment No. 3:
With respect to subsection (i), Mr. Smith stated that although no changes are currently proposed by the Board, the existing requirement that contractors or outside service personnel follow the on-site employer's lockout/tagout procedures is impractical. He said he has seen many cases where the Division has cited the outside contractor for deficient procedures without even looking at the on-site employer's procedures, and that the on-site employer may not have adequate lockout/tagout procedures, or they may not address the work being performed by the service contractor. Furthermore, the service contractor may not even be hired by the employer, but may be performing building maintenance, such as HVAC, at the request of the building owner who is other than the employer. He suggested changing the last part of subsection (i) to read: "lockout or tagout procedures may be followed" so that the outside contractor may chose to follow their own lockout/tagout procedures.

Response:
See the Board's response to Mr. Smith's written comment no. 9. The Board notes that since this subject was not taken up by the advisory committee, it is of the opinion that this comment is

outside the scope of this proposal and declines to modify subsection (i). Mr. Smith may petition the Board for a separate rulemaking to address this concern if he so wishes.

Comment No. 4:
Finally, as a matter of clarification, Mr. Smith stated that the Board should not be envisioning that these procedures apply exclusively to production machinery. For example, the Division has applied them to mobile equipment such as a ready mix truck and to scissors lifts, for failure to lockout. It should not be limited to production machinery, but so as to include mobile equipment and non-production machinery. Therefore, he feels it important to avoid burdening the public with "red tape" and expressed his opinion that the advisory committee consensus took this into consideration and that the consensus exceptions would be more effective than the federal exceptions. He went on to comment that, under the proposal, the only employer who would be eligible for group lockout/tagout procedures would be an employer who had never had a lockout/tagout related accident of any kind for an unspecified period of time.

Response:
The Board believes this comment pertains to subsection (g)(2). The Board accepts this comment and, as noted previously, the subsection has been modified to substantially conform to the consensus proposal.

The Board thanks Mr. Smith for his comments and his participation in the Board's rulemaking process.

Mr. Len Welsh, Acting Chief, Division of Occupational Safety and Health (Division).

Comment:
Chair Rank asked Mr. Welsh if he had any comments about the concerns raised by Mr. Smith. Mr. Welsh stated that the one issue that caught his attention the most is the problem of contractors going to another work site. He commented that simple approaches to this subject, i.e., "shall follow" or "may follow" may be too simple and may create a problem. If the Board were to go back to this issue, he would want to see something requiring communication between the on-site employer and the contractor to prevent a misunderstanding that could lead to an accident.

Response:
For the reasons discussed in response to Mr. Smith's oral comment no. 3, and as Mr. Welsh's comments indicate, this is potentially a complex issue, and the Board is of the opinion that this issue could appropriately be the subject of a separate rulemaking. Therefore, Board declines to take-up this issue as part of this rulemaking.

The Board thanks Mr. Welsh for his comment and participation in the Board's rulemaking process.

ADDITIONAL DOCUMENTS RELIED UPON

- U.S. Department of Labor, Occupational Safety and Health Administration, Standard Interpretation of 29 CFR 1910.147(c)(6), by letter dated August 5, 1994, to Mr. M.L. Hall, Program Safety Manager, IBM, Somers, NY.
- U.S. Department of Labor, Occupational Safety and Health Administration, Standard Interpretation of 29 CFR 1910.147(c)(6), by letter dated September 19, 1995, to Mr. Lawrence P. Halprin, Law Offices of Keller and Heckman, Washington, DC.
- U.S. Department of Labor, Occupational Safety and Health Administration, Standard Interpretation of 29 CFR 1910.147, by letter dated July 15, 2003, to Mr. David Teague, Project Engineer, James Hardie Building Products, Fontana, CA.
- Oregon Administrative Rules, Section 1910.147, The Control of Hazardous Energy (Lockout/Tagout).
- Washington Administrative Code, Chapter 296-24, Part A-4, Safety Procedures.
- U.S. Department of Labor, Occupational Safety and Health Administration, Standard Interpretation of 29 CFR 1910.147(b) and 1910.147(c)(7), dated February 10, 2004.

ADDITIONAL DOCUMENTS INCORPORATED BY REFERENCE

None.

DETERMINATION OF MANDATE

These standards do not impose a mandate on local agencies or school districts as indicated in the Initial Statement of Reasons.

ALTERNATIVES CONSIDERED

The Board invited interested persons to present statements or arguments with respect to alternatives to the proposed regulation. No alternatives considered by the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the adopted action.

Although some commenters suggested the incorporation of ANSI/ASSE Z244.1-2003 in whole or in part as an alternative to the proposed standard, the format of the national consensus standard is not entirely regulatory in nature, and could be difficult to enforce in a uniform and consistent manner. Furthermore, until and unless 29 CFR 1910.147 is substantially modified, there is a serious question whether Z244.1-2003 could be considered at-least-as-effective-as the current federal standards. Lastly, the proposal to incorporate Z244.1-2003 was raised at the advisory committee, and after thorough discussion, there was no consensus among committee members to incorporate it either in whole or in part. The Board is therefore of the opinion that A244.1-2003 is not a viable alternative at this time.